

IN THE CLAIMS

1. (Currently Amended) An aqueous drilling fluid containing a starch polymer having a content of amylose of at least 50% by weight,

wherein the starch polymer is modified with at least one of carboxymethyl groups and hydroxypropyl groups.

2. (Original) The drilling fluid of Claim 1 wherein the starch polymer has a content of amylose of at least 70% by weight.

3. (Original) The drilling fluid of Claim 1 wherein the starch polymer is derived from a starch or blend of starches comprised of less than 50% amylopectin.

4. (Currently Amended) The drilling fluid of Claim 1 wherein the starch polymer is a modified starch produced by processing of a high amylose ~~amylopectin~~ natural starch.

5. (Original) The drilling fluid of Claim 1 wherein the starch polymer was made by a process selected from the group consisting of fractional precipitation processes and reduction processes.

6. (Original) The drilling fluid of Claim 1 wherein the starch polymer has been modified with carboxymethyl groups.

7. (Original) The drilling fluid of Claim 1 wherein the starch polymer has been modified with hydroxypropyl groups.

8. (Currently Amended) The drilling fluid of Claim 1 wherein the starch polymer is modified with both hydroxypropyl groups and carboxymethyl groups.

9. (Original) The drilling fluid of Claim 1 wherein the starch polymer is crosslinked.

10. (Currently Amended) An aqueous drilling fluid for drilling an oil or ~~and~~ gas well comprising water, starch and at least one of brine and clay, wherein the starch is a high amylose content starch polymer having a content of amylose of at least 50% by weight, and wherein the starch polymer is a modified starch polymer, the modification being obtained by a process selected from the group consisting of carboxymethylation and hydroxypropylation.

11. (Original) The fluid of Claim 10 further comprising a biopolymer such as xanthan gum.

12. (Original) The fluid of Claim 10 further comprising at least one of hydroxyethyl cellulose, carboxymethyl cellulose, a lignosulfonate salt, an emulsifier, a weighting agent, a corrosion inhibitor, calcium carbonate, sized calcium carbonate, magnesia, or another starch derivative different from the high amylose content starch polymer.

13. (Currently Amended) The fluid of Claim 10 wherein the starch polymer has been derived from a starch comprised of less than 50% amylopectin and is selected from the group consisting of ~~collyse~~ Collys E700 and high amylose corn hydrids.

14. (Canceled)

15. (Original) The fluid of Claim 10 wherein said starch polymer is a modified starch polymer and is carboxymethylated.

16. (Original) The fluid of Claim 10 wherein said starch polymer is a crosslinked starch polymer.

17. (Currently Amended) In a well drilling process comprising the step of providing an aqueous drilling fluid comprising a mixture of brine, clay and a fluid loss polymer to a bore hole, the improvement comprising that at least a portion of the fluid loss polymer is a high amylose content starch polymer having a content of amylose of at least 50% by weight,

wherein the starch polymer is modified with at least one of carboxymethyl groups and hydroxypropyl groups.

18. (Original) The process of Claim 17 wherein the starch polymer has a content of amylose of at least 70% by weight.

19. (New) The process of Claim 17 wherein the starch polymer has been modified with carboxymethyl groups.

20. (New) The process of Claim 17 wherein the starch polymer has been modified with hydroxypropyl groups.

21. (New) The process of Claim 17 wherein the starch polymer is modified with hydroxypropyl groups and carboxymethyl groups.